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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of: |) | |
| LEO GILLES |) | Group Art Unit |
| |) | |
| Serial No. |) | |
| |) | Examiner |
| Filed: Herewith |) | |
| |) | |
| For: DISC BRAKE |) | Attorney Docket 1-25187 |

Commissioner for Patents
P.O. Box 1450
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TRANSMITTAL OF VERIFIED ENGLISH TRANSLATION OF
PRIORITY APPLICATION NEW CLAIMS

Honorable Sir:

Attached please find a verified English translation of priority application new claims for Application No. PCT/EP02/11859.

Respectfully submitted,



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V E R I F I C A T I O N

I, Madgie Vintin, BA., MITI., translator to Taylor & Meyer of 20 Kingsmead Road, London, SW2 3JD, hereby declare that I am the translator of the documents attached, and certify that the following is a true translation, to the best of my knowledge and belief.

Madgie Vintin

(translator)

11th March 2004

(date)

Claims

1. Disc brake having two brake shoes (12, 14), which for
5 generating a clamping force (A, A') are pressable
against both sides of a brake disc (16), an actuator
device (26) for actuating at least one of the brake
shoes (12, 14), and a detection device (38) for
10 detecting the coming-into-abutment of at least one of
the brake shoes (12, 14) against the brake disc (16),
which detection device during the coming-into-abutment
adopts a characteristic state,
characterized in
that the detection device (38) comprises an elastic
15 element (44, 76), the elastic properties of which
oppose the adoption of the characteristic state.
2. Disc brake according to claim 1,
characterized in that the detection device (38) adopts
20 the characteristic state when a force threshold
determined by the elastic properties of the elastic
element (44, 76) is reached.
3. Disc brake according to claim 2,
25 characterized in that the force threshold lies below
approximately 100 N.
4. Disc brake according to claim 2 or 3,
characterized in that the elastic element (44, 76) is
30 disposed functionally between at least one of the
brake shoes (12, 14) and the actuator device (26).

5. Disc brake according to one of claims 1 to 4,
characterized in that at least one of the brake shoes
(12, 14) is accommodated in a cage (40), which is
rigidly coupled to the actuator unit (26), so as to be
displaceable to a limited extent relative to the
actuator device (26).
6. Disc brake according to one of claims 1 to 5,
characterized in that the detection device is designed
as a switching device (38).
7. Disc brake according to claim 6,
characterized in that the switching device (38)
comprises at least one contact pair having a first
contact (46, 46') and a second contact (48, 48'),
which upon the coming-into-abutment of at least one of
the brake shoes (12, 14) against the brake discs (16)
adopt a characteristic switching state relative to one
another.
8. Disc brake according to claim 7,
characterized in that the elastic element (44, 76) is
disposed functionally between the first contact (46,
46') and the second contact (48, 48').
9. Disc brake according to claim 7 or 8,
characterized in that the first contact (46, 46') is
coupled to the actuator unit (26) and the second
contact (48, 48') is coupled to at least one of the
brake shoes (12, 14).
10. Method of effecting open- or closed-loop control of a
brake system, which includes a disc brake having two

- brake shoes (12, 14), which for generating a clamping force (A, A') are pressable against both sides of a brake disc (16), and an actuator device (26) for actuating at least one of the brake shoes (12, 14),
5 comprising the step of generating, as a reaction to a coming-into-abutment of at least one of the brake shoes (12, 14) against the brake disc (16), a characteristic state of a detection device (38) that is electrically evaluable for open- or closed-loop
10 control purposes,
characterized in
that the detection device (38) comprises an elastic element (44, 76), the elastic properties of which oppose the adoption of the characteristic state.
- 15
11. Method according to claim 10,
characterized in that after detection of the characteristic state closed-loop control of the clamping force begins.
- 20
12. Method according to claim 11,
characterized in that the closed-loop control of the clamping force is based on the evaluation of at least one of the following parameters: a rotor angle of
25 rotation, a motor power consumption and a spindle angle of rotation.